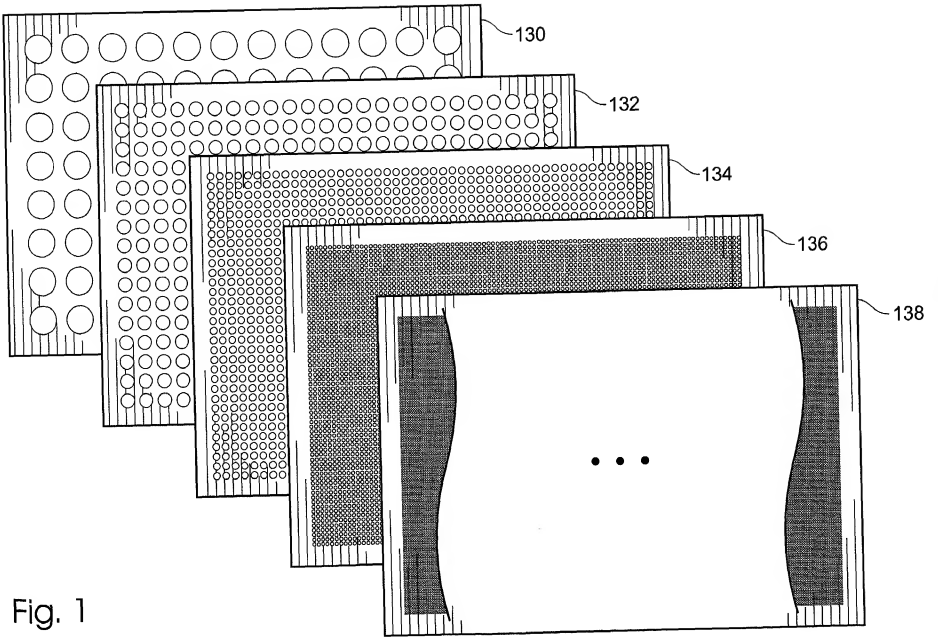


Fig. 1

Fig. 2

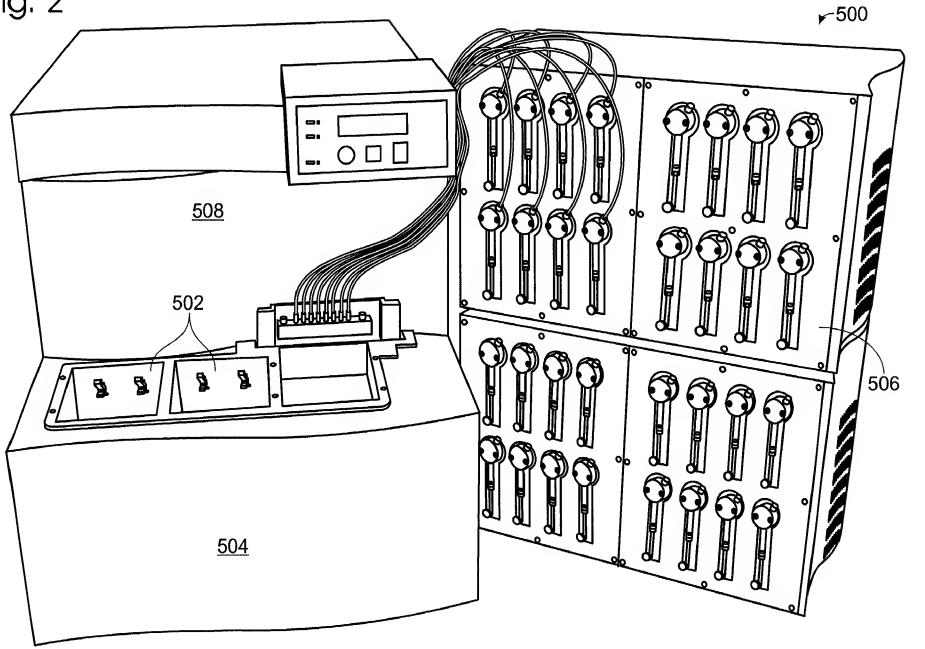


Fig. 3

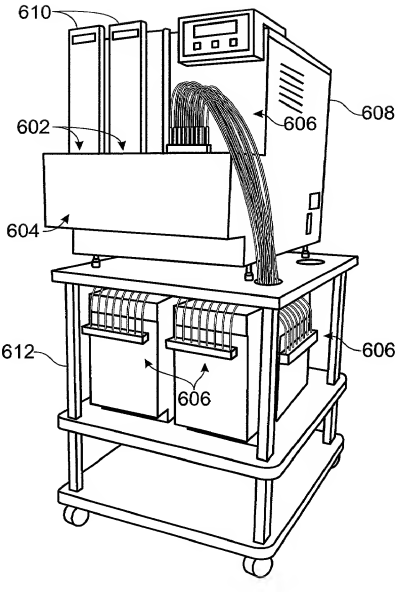

610
600
602
606
608
604
612
606
606

Fig. 4

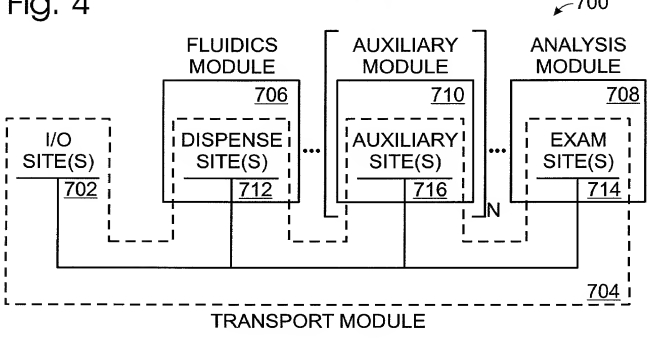

700
FLUIDICS MODULE
706
AUXILIARY MODULE
710
ANALYSIS MODULE
708
I/O SITE(S)
702
DISPENSE SITE(S)
712
AUXILIARY SITE(S)
716
EXAM SITE(S)
714
N
704
TRANSPORT MODULE

Fig. 5

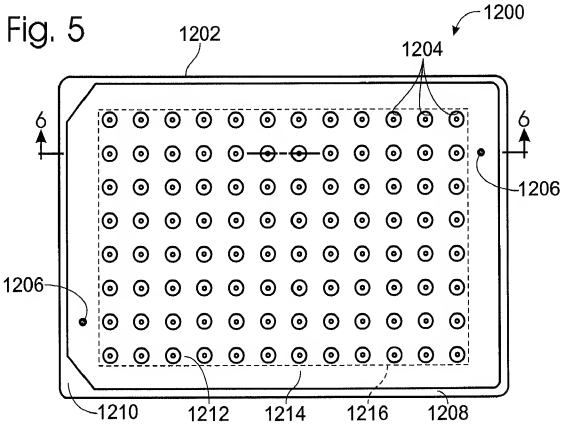


Fig. 6

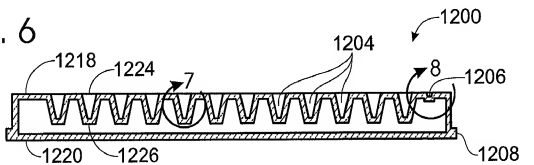


Fig. 8

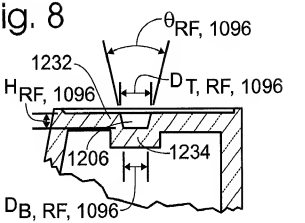


Fig. 7

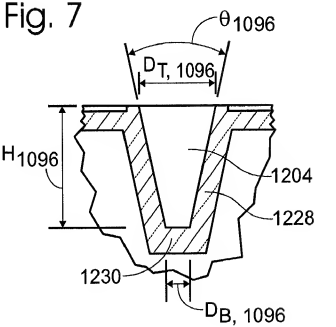


Fig. 9

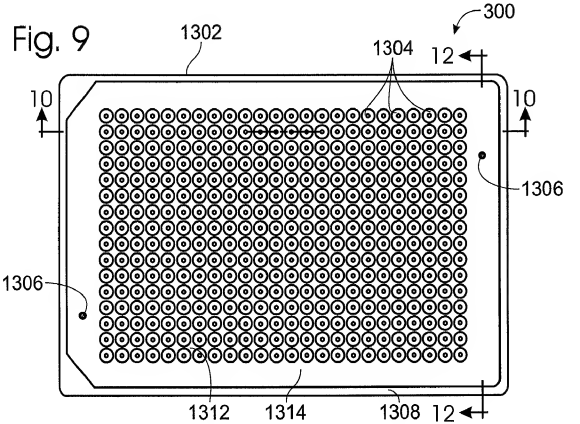


Fig. 10

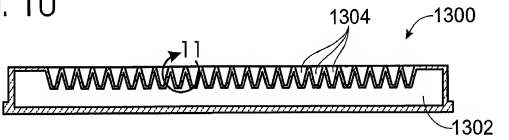


Fig. 12

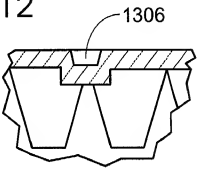


Fig. 11

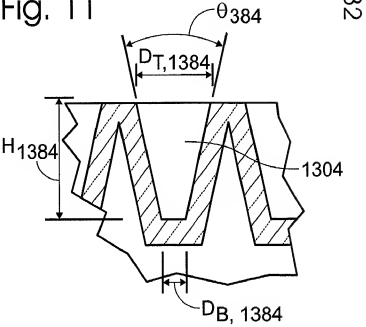


Fig. 13

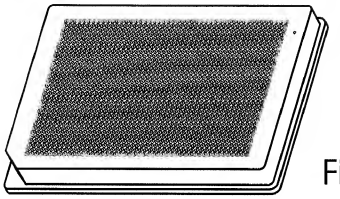


Fig. 14

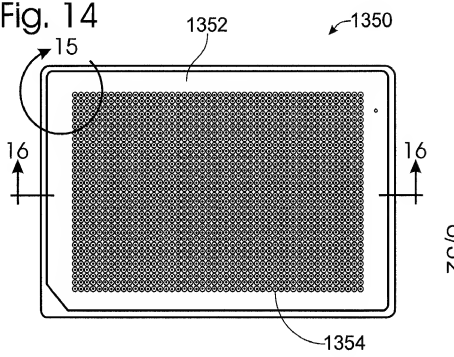


Fig. 15

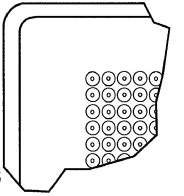


Fig. 17

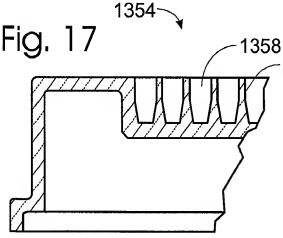


Fig. 16

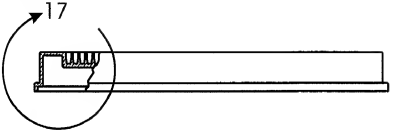


Fig. 18

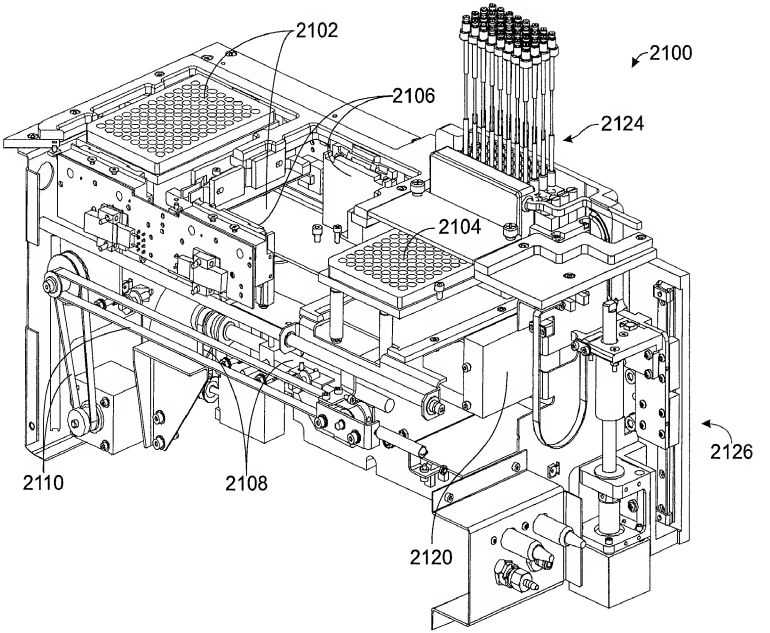


Fig. 19

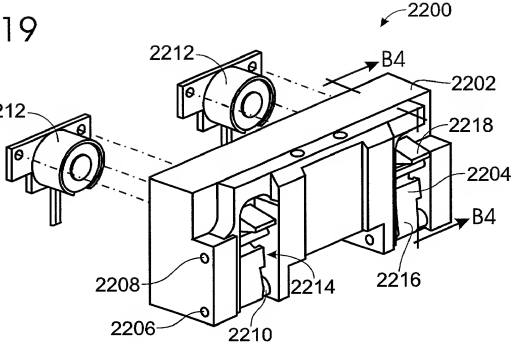

2200
2212
B4
2202
2212
2218
2204
B4
2208
2214
2216
2206
2210

Fig. 20

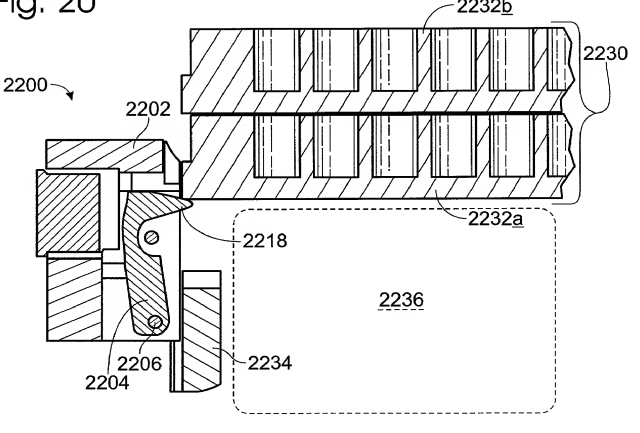

2232b
2230
2200
2202
2232a
2218
2236
2206
2234
2204

Fig. 21 (INPUT CYCLE)

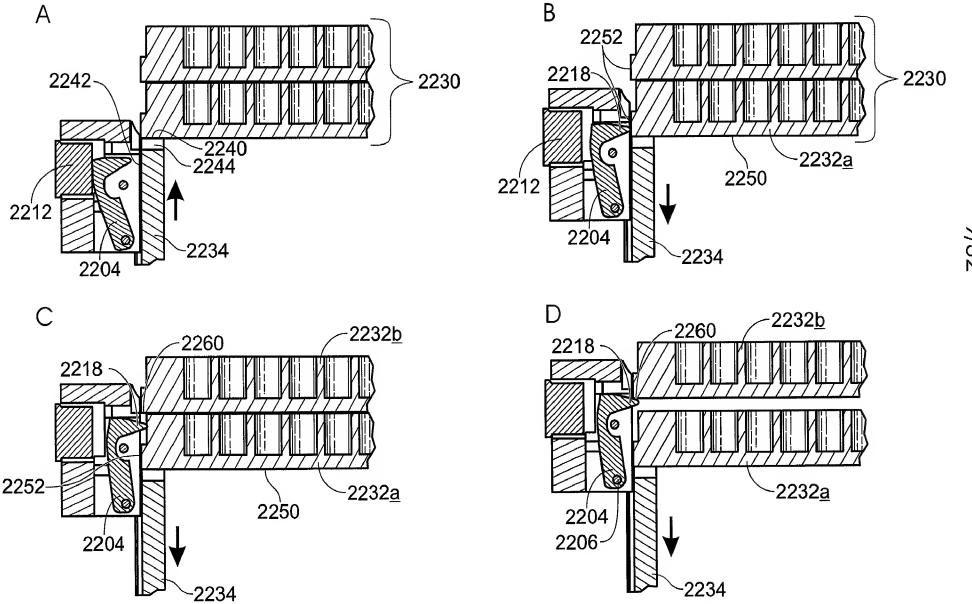


Fig. 22 (OUTPUT CYCLE)

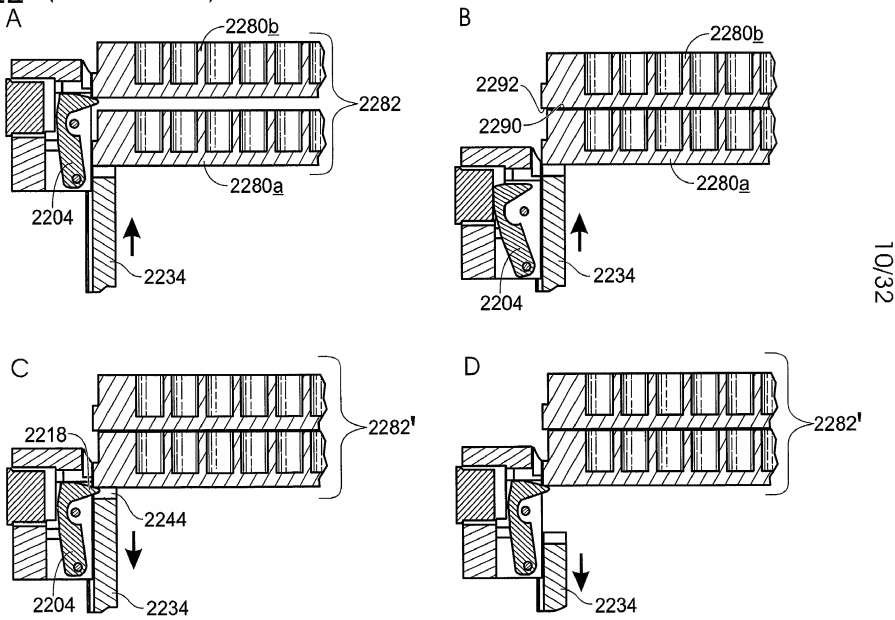


Fig. 23

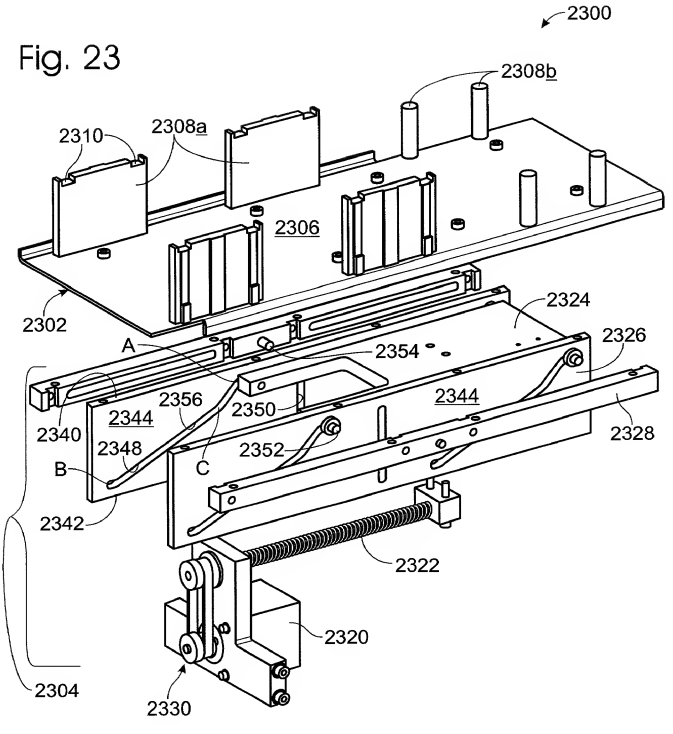

2300
2308b
2310
2308a
2306
2302
2324
2326
A
2354
2356
2350
2344
2340
2344
2348
2352
2328
B
C
2342
2322
2320
2304
2330

Fig. 24

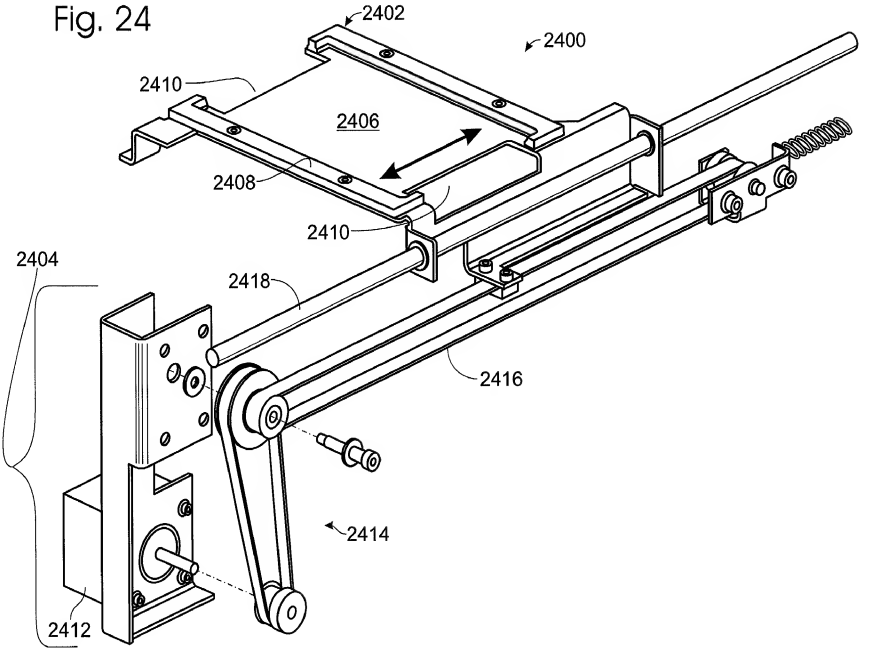


Fig. 25

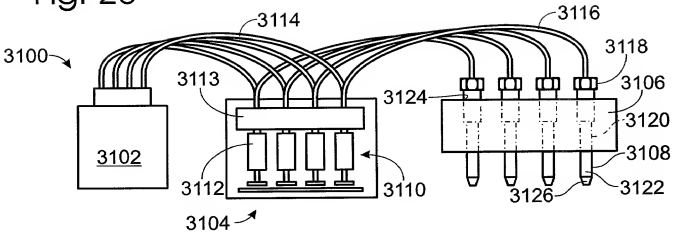


Fig. 26

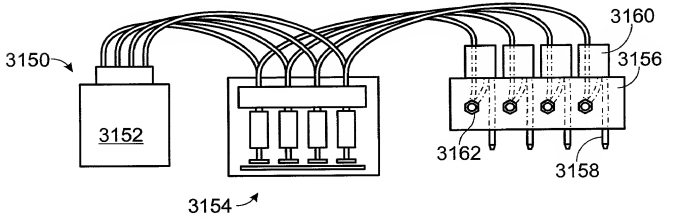


Fig. 27

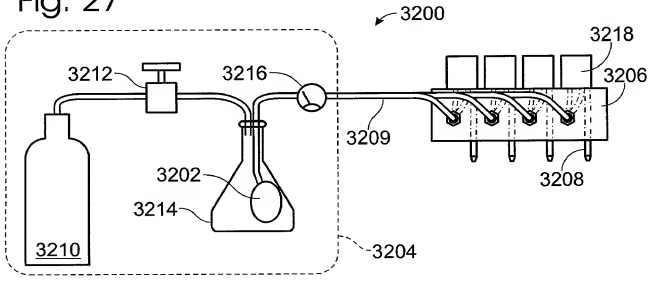


Fig. 28

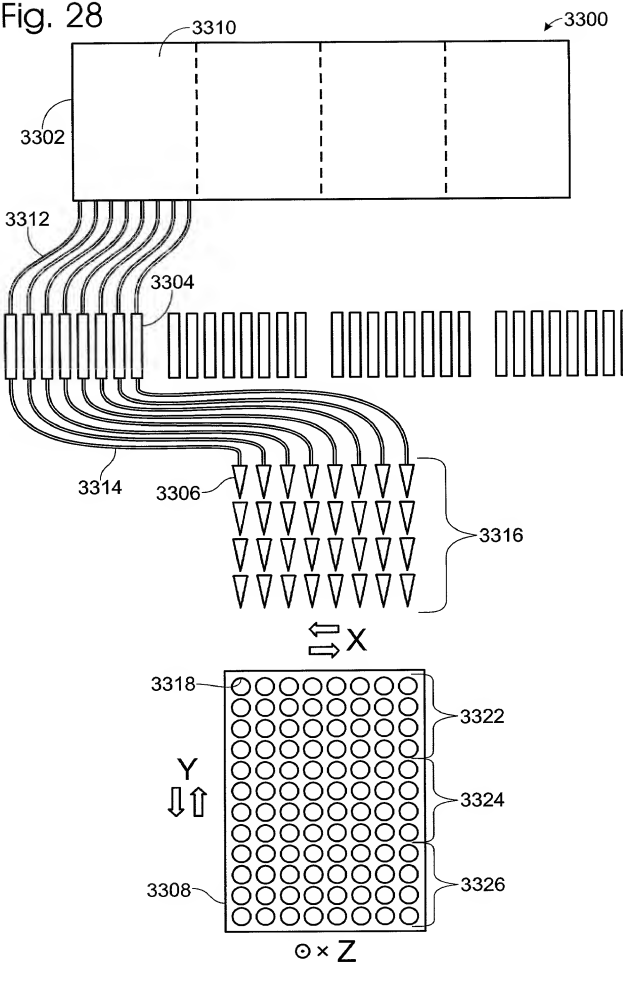

3310
3300
3302
3312
3304
3314
3306
3316
X
3318
3322
Y
3324
3308
3326
⊙ × Z

Fig. 29

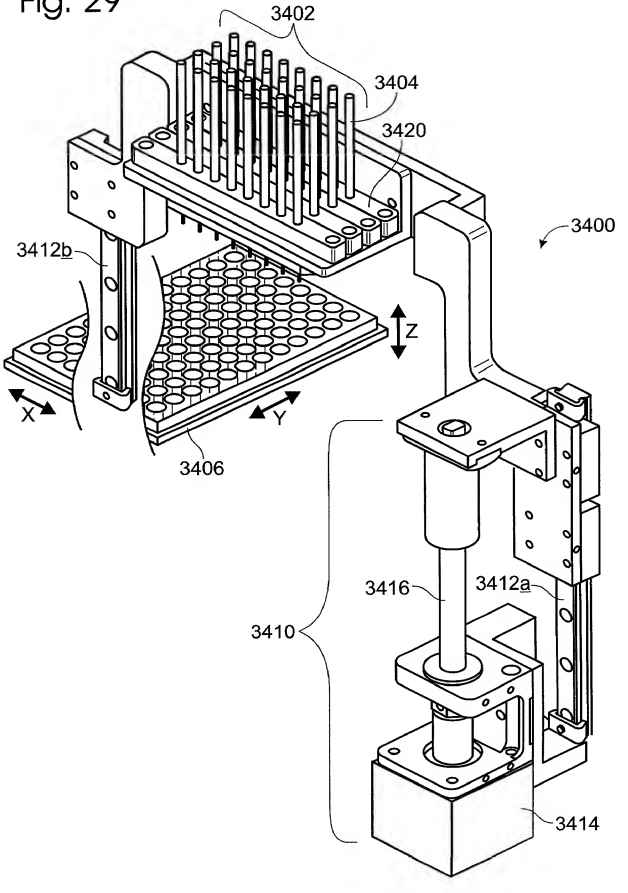


Fig. 30

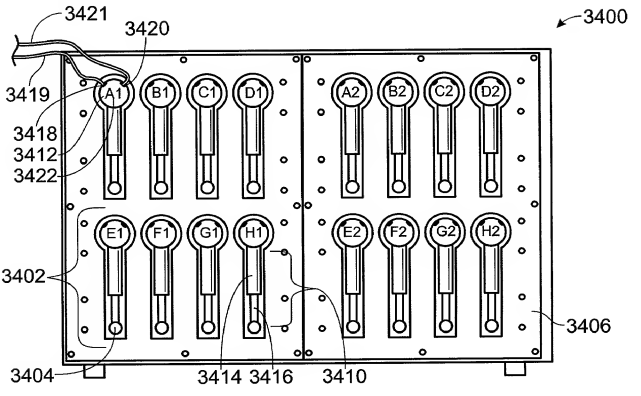

3421
3420
3400
3419
A1
B1
C1
D1
A2
B2
C2
D2
3418
3412
3422
E1
F1
G1
H1
E2
F2
G2
H2
3402
3406
3404
3414
3416
3410

Fig. 31

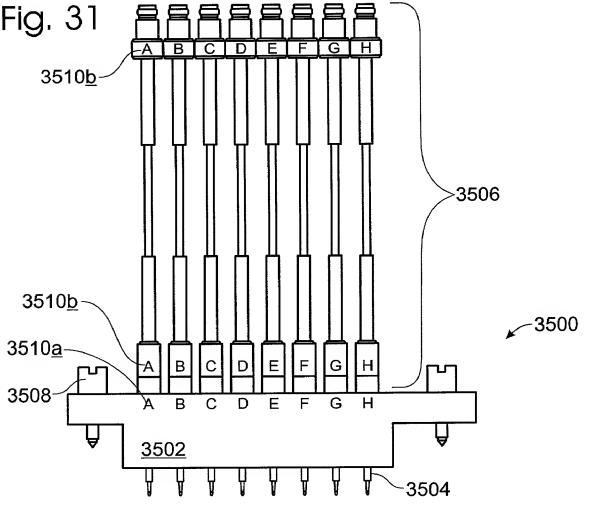

A
B
C
D
E
F
G
H
3510b
3506
3510b
3500
3510a
3508
3502
3504

Fig. 32

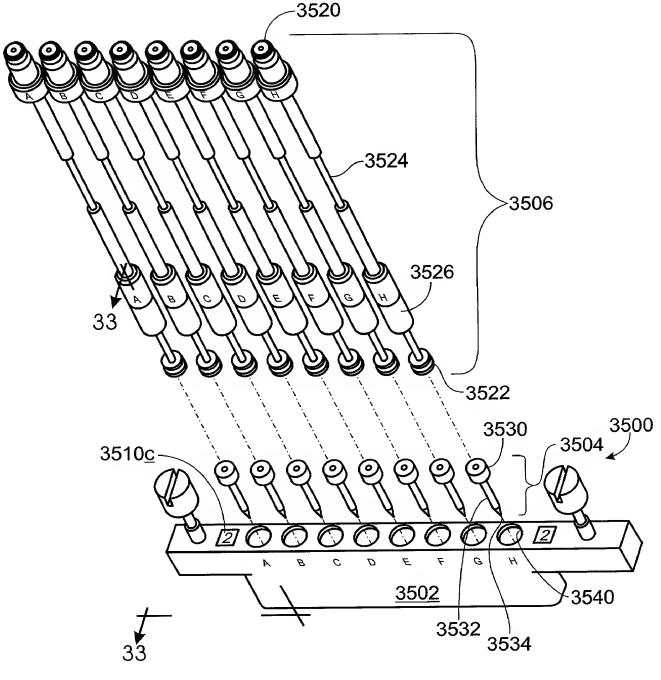

3520
3524
3506
3526
33
3522
3530
3500
3504
3510c
3502
3540
3532
3534
33

Fig. 33

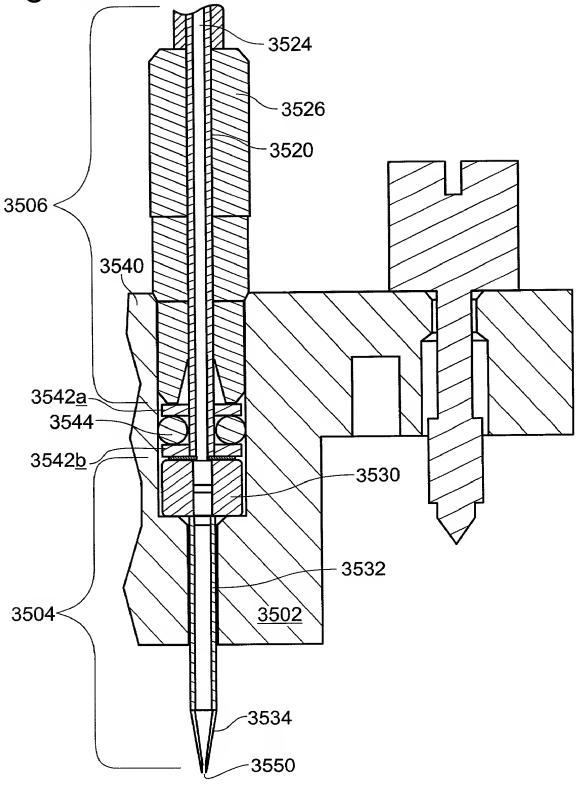

3524
3526
3520
3506
3540
3542a
3544
3542b
3530
3532
3504
3502
3534
3550

Fig. 34

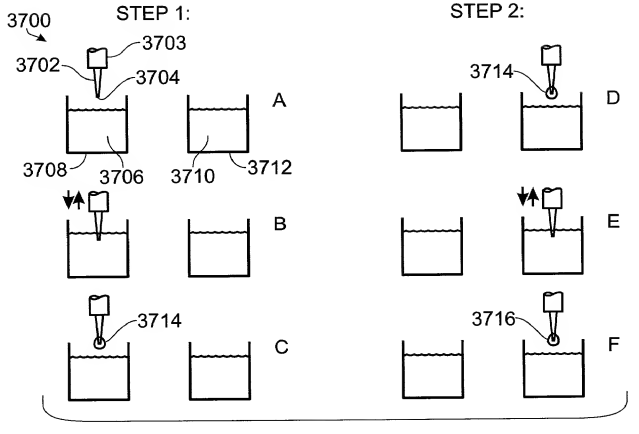

3700
STEP 1:
STEP 2:
3703
3702
3704
3714
A
D
3708
3706
3710
3712
B
E
3714
3716
C
F

Fig. 35

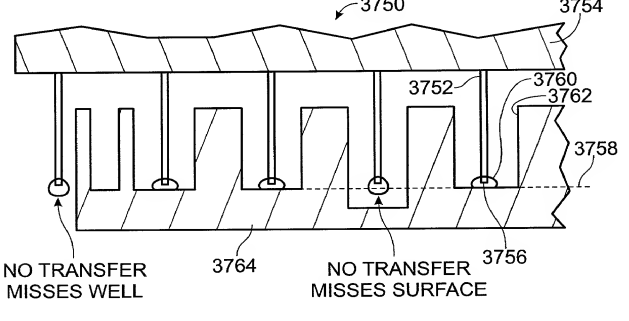

3750
3754
3752
3760
3762
3758
NO TRANSFER
MISSES WELL
3764
NO TRANSFER
MISSES SURFACE
3756

Fig. 36

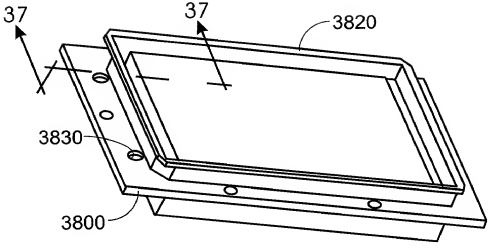

37
37
3820
3830
3800

Fig. 37

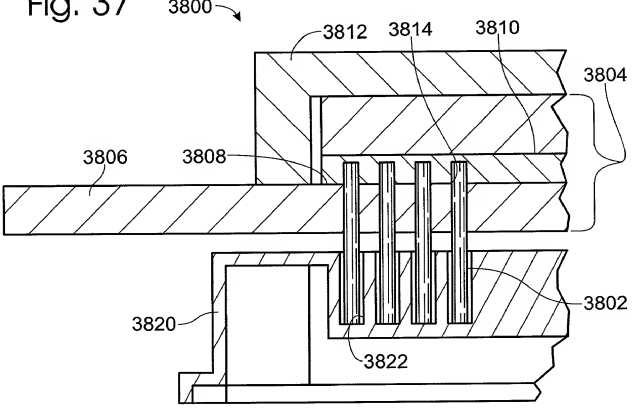

3800
3812
3814
3810
3804
3806
3808
3802
3820
3822

Fig. 38

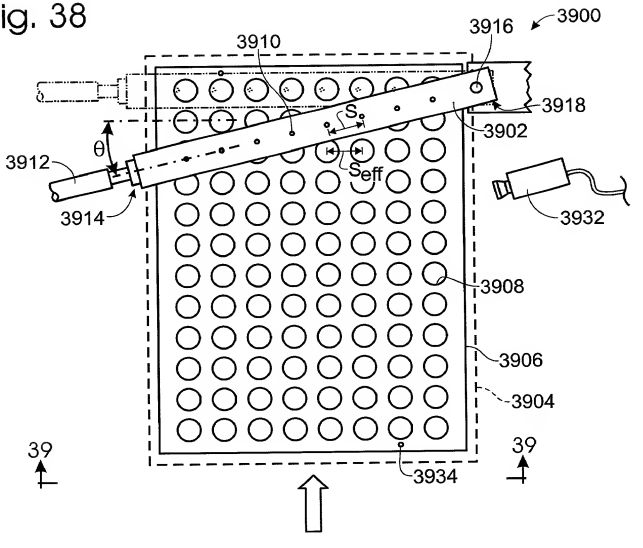

3900
3910
3916
3918
3902
S
θ
3912
S_{eff}
3914
3932
3908
3906
3904
39
39
3934

Fig. 39

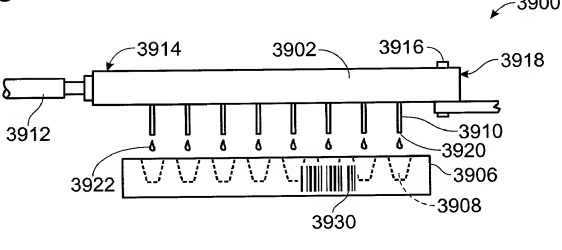

3900
3914
3902
3916
3918
3912
3910
3920
3922
3906
3908
3930

Fig. 40

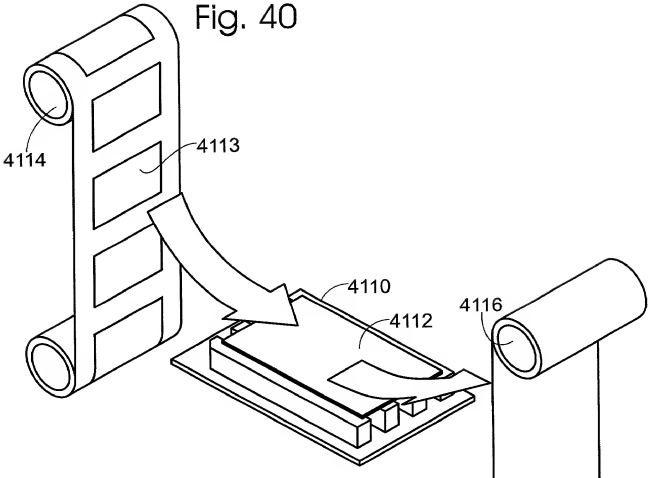


Fig. 41

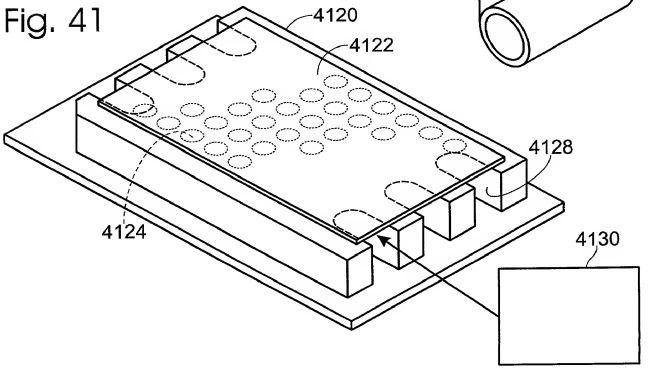


Fig. 42

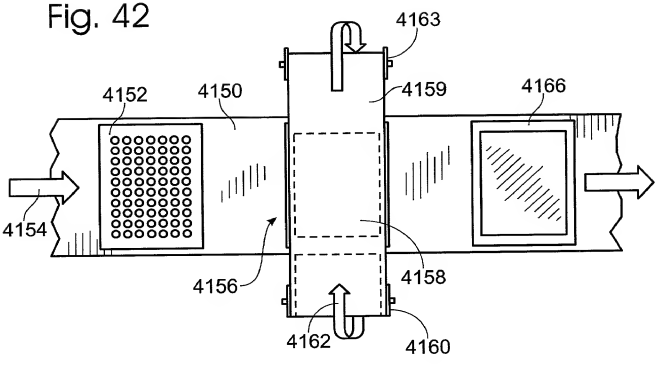

4163
4152
4150
4159
4166
4154
4156
4158
4162
4160

Fig. 43

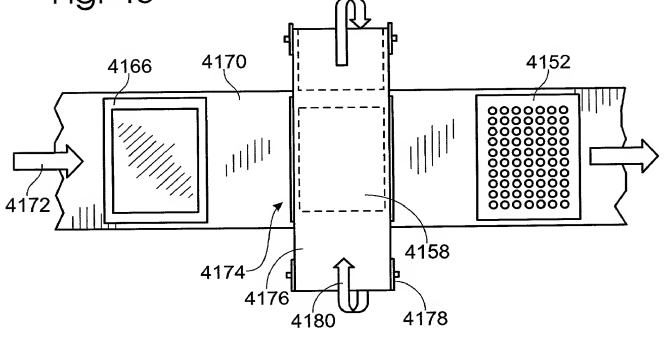

4166
4170
4152
4172
4174
4158
4176
4180
4178

Fig. 44

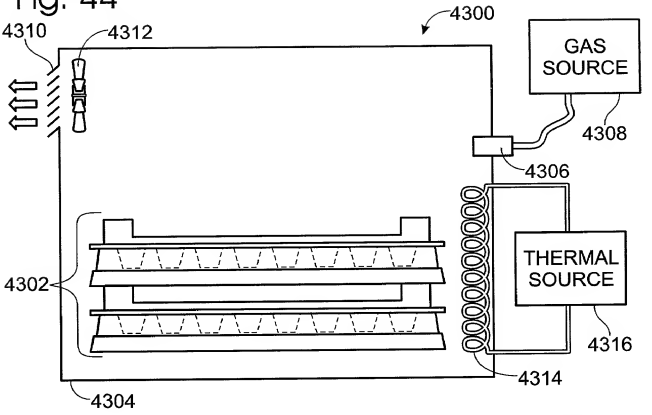


Fig. 45

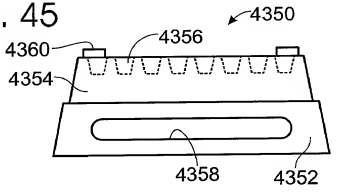


Fig. 46

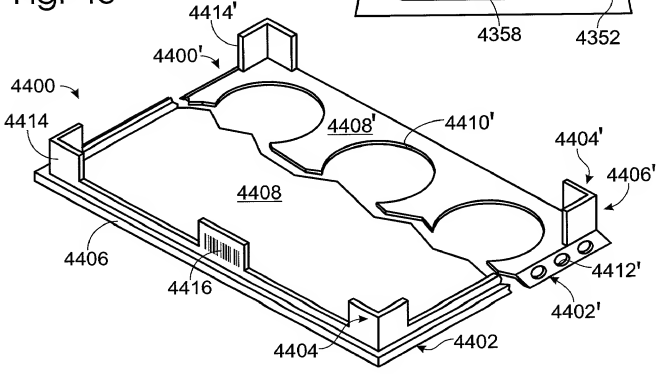


Fig. 47

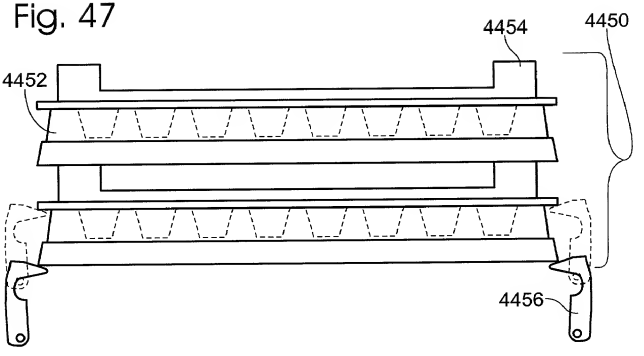

4454
4450
4452
4456

Fig. 48

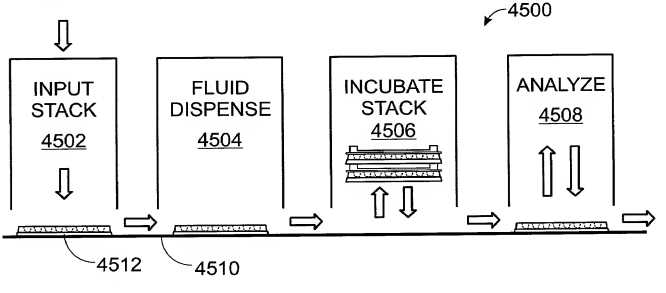
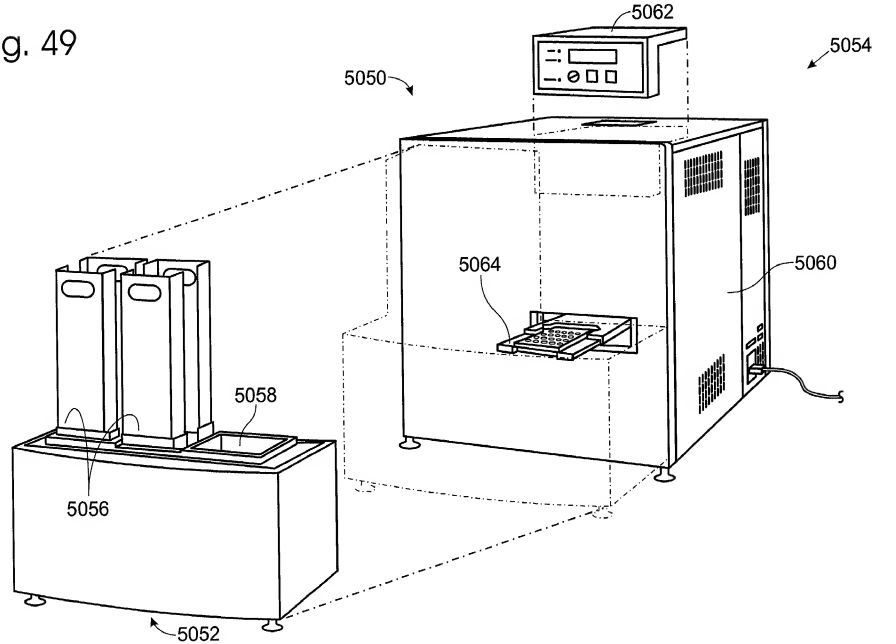

4500
INPUT STACK 4502
FLUID DISPENSE 4504
INCUBATE STACK 4506
ANALYZE 4508
4512
4510

Fig. 49



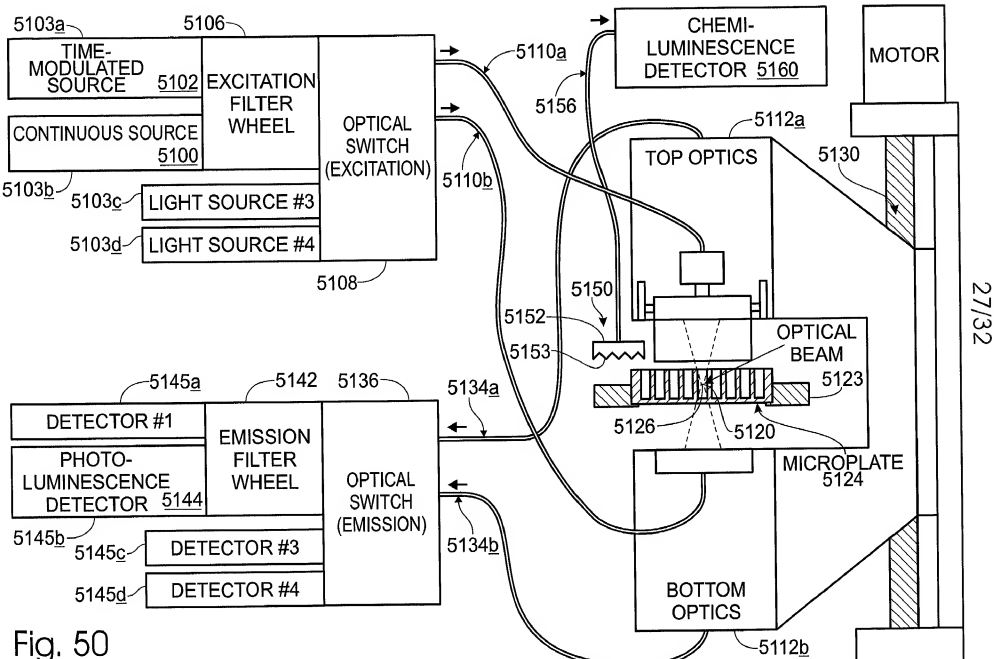

5103a
5106
TIME-MODULATED SOURCE 5102
EXCITATION FILTER WHEEL
CONTINUOUS SOURCE 5100
OPTICAL SWITCH (EXCITATION)
5103b
5103c
LIGHT SOURCE #3
5103d
LIGHT SOURCE #4
5108
5110a
5110b
CHEMI-LUMINESCENCE DETECTOR 5160
5156
MOTOR
5112a
TOP OPTICS
5130
5150
5152
5153
OPTICAL BEAM
5123
5126
5120
MICROPLATE 5124
5145a
5142
5136
DETECTOR #1
PHOTO-LUMINESCENCE DETECTOR 5144
EMISSION FILTER WHEEL
OPTICAL SWITCH (EMISSION)
5134a
5134b
5145b
5145c
DETECTOR #3
5145d
DETECTOR #4
BOTTOM OPTICS
5112b

Fig. 50

Fig. 51

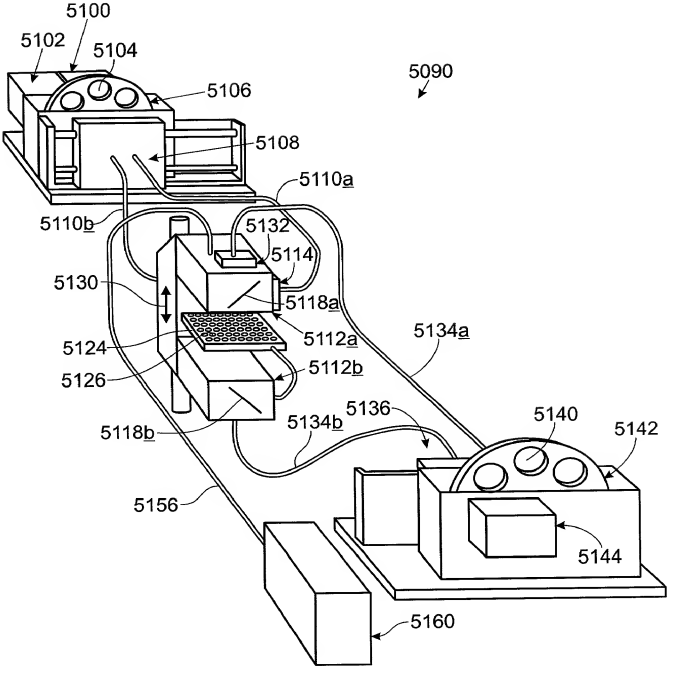
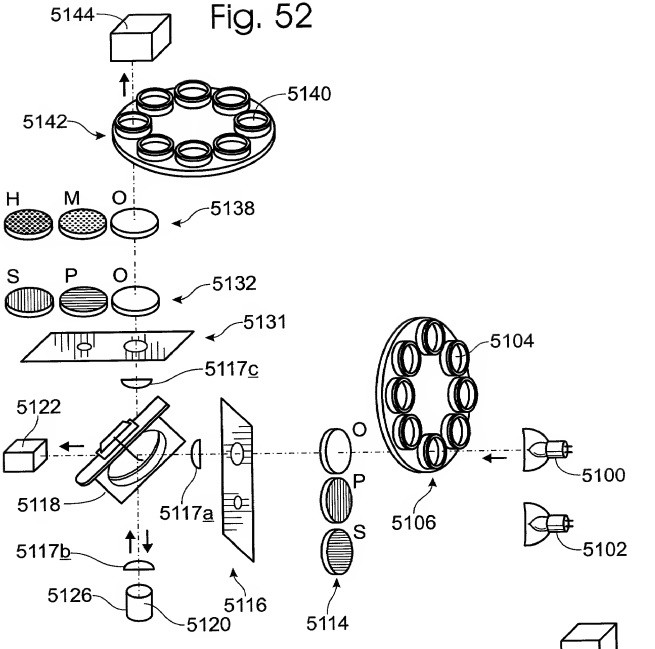

5100
5102
5104
5090
5106
5108
5110a
5110b
5132
5114
5130
5118a
5124
5112a
5134a
5126
5112b
5136
5140
5142
5118b
5134b
5156
5144
5160

Fig. 52


5144
5140
5142
H
M
O
5138
S
P
O
5132
5131
5117c
5122
5104
5118
5117a
O
P
S
5106
5100
5102
5117b
5126
5120
5116
5114

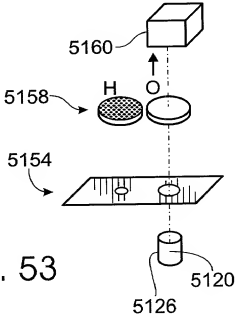

5160
5158
H
O
5154
5120
5126

Fig. 53

Fig. 54

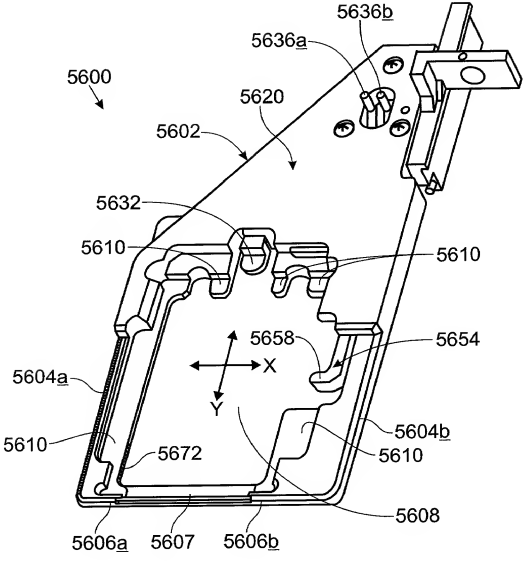

5636b
5636a
5600
5620
5602
5632
5610
5610
5658
5654
X
Y
5604a
5610
5672
5604b
5610
5608
5606a
5607
5606b

Fig. 55

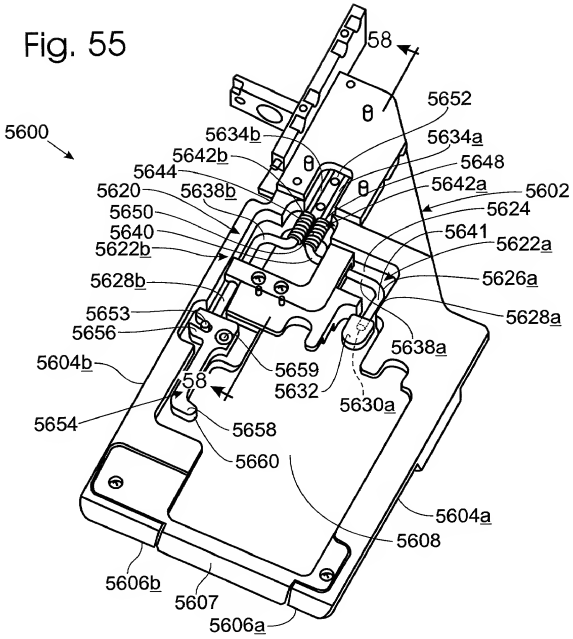

5600
58
5652
θ
5634b
5634a
5642b
5644
θ
θ
5648
5642a
5620
5638b
5602
5650
5624
5640
5641
5622b
5622a
5628b
5626a
5653
5628a
5656
5638a
5604b
5659
58
5632
5630a
5654
5658
5660
5604a
5608
5606b
5607
5606a

Fig. 56

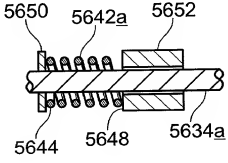
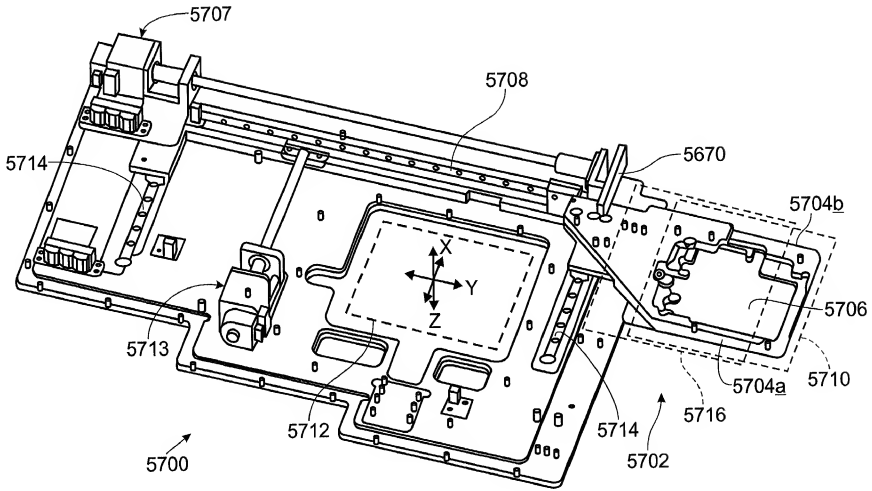

5650
5642a
5652
5644
5648
5634a

Fig. 57


5707
5708
5714
5670
5704b
X
Y
Z
5706
5713
5710
5704a
5716
5712
5714
5702
5700